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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,496	08/27/2001	Hideo Miyake	1614.1181	2883

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EXAMINER

HUYNH, KIM T

ART UNIT PAPER NUMBER

2112

DATE MAILED: 10/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/938,496

Applicant(s)

MIYAKE ET AL.

Examiner

Kim T. Huynh

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-13, 15 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-13, 15 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7-13, 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyake et al. (Pub No US 20010004757) in view of Matsuyama (US Patent 6,269,419)

As per claims 1, 9, Miyake discloses a computer which processes an interrupt when an instruction in a program is executed, said computer comprising a data holding part which holds data at a time when said interrupt starts to occur. [0019]

Miyake discloses all the limitations as above except said data holding part holding data which indicates a factor of said interrupt. However, Matsuyama discloses holding a plurality of flags indicative of interrupt factors with respect to the respective interrupt request inputs and also holding a plurality of interrupt levels representative of priority orders of the interrupt request inputs. (col.5, lines 59-67)

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Matsuyama's teaching into Miyake's system so as to provide an information processing method and an information

processing apparatus capable of improving an interrupt response characteristic with respect to an interrupt factor of a high priority order. (col.5, lines 53-58)

As per claims 2, 10, Miyake discloses wherein said data holding part includes a plurality of registers. [0013], [0169-170]

As per claims 3, 11, Miyake discloses computer further comprising flags each of said flags indicating whether said data is held in said register. [0316], [0252]

As per claims 4, 12, Miyake discloses computer further comprising a data storing part, wherein said data holding part holds said data to be stored in said data storing part at a time when said interrupt occurs while a store instruction is executed, said store instruction requesting that said data is stored in said data storing part. [0019]

As per claims 5, 13, Miyake discloses wherein said data holding part holds an instruction address of an instruction which causes said interrupt. [0014]

As per claims 7, 15, Miyake discloses wherein said data holding part holds an effective address of a load instruction or a store instruction when said interrupt occurs while said load instruction or said store instruction is executed. [0014]

As per claims 8, 16, Miyake discloses wherein said data is used for recovery from said interrupt. (fig.13, 450, [0169-170])

Response to Amendment

3. Applicant's amendment filed on 7/09/04 have been fully considered but are moot in view of the new ground(s) of rejection.

a. In response to applicant's argument that Mikyke does not teach or suggest said data holding part holding data which indicates a factor of said interrupt. However, Matsuyama discloses holding a plurality of flags indicative of interrupt factors with respect to the respective interrupt request inputs and also holding a plurality of interrupt levels representative of priority orders of the interrupt request inputs. (col.5, lines 59-67)

Thus, the prior art teaches the invention as claimed and the amended claims do not distinguish over the prior art as applied.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (571)272-3635 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 9:00AM- 6:00PM.*

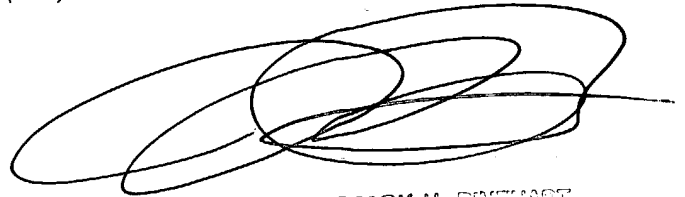
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (571)272-3632 or via e-mail addressed to [mark.rinehart@uspto.gov]. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9306 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

Kim Huynh

October 1, 2004

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

MARK M. RINEHART
SUPERVISORY PATENT EXAMINER
TECHNICAL CENTER 2100